

Content Is Thinking, Thinking is Content

A Foundation for The Logic of Teaching

Richard Paul and Linda Elder

March 22, 1999

The first and most important insight necessary for the appropriate design of instruction and curriculum is that content is, in the last analysis, nothing more nor less than a mode of thinking. Let me explain.

There are many ways to begin to grasp the profound truth that all content is nothing more nor less than a mode of thinking (about something), a way of figuring something out, a way of understanding something through thought. Here are just three ways of beginning to grasp this truth:

1) All "content" in school is content in a subject. All subjects are areas of study. All areas of study are "things" that we are interested in "figuring out". All fields of study have been advanced insofar as we have discovered ways to figure out whatever is being studied. There is no way to figure out something without thinking. There is no way to learn how to figure something out without learning how to think it through. There is no way to learn mathematical content without learning how to figure out correct answers to mathematical questions and problems. There is no way to learn historical content without learning how to figure out correct or reasonable answers to historical questions and problems. There is no way to learn biological content without learning how to figure out answers to biological questions and problems. Any subject or "content area" can therefore be understood as a mode of figuring out correct or reasonable answers to a certain body of questions. We study chemistry to figure out chemicals (to answer questions about chemicals). We study psychology to figure out people (to answer questions about certain human problems). All subjects can be understood best in this way.

2) All "content" involves concepts. There is no way to learn a body of content without learning the concepts which define and structure it. There is no way to learn a concept without learning how to use it in thinking something through. Hence, to learn the concept of democracy is to learn how to figure out whether some group is functioning democratically or not. To learn the concept of fair play is to learn how to figure out whether someone is being fair in the manner in which they are participating in a game. To learn the concept of a novel is to learn how to distinguish a novel from a play or short story. To learn the concept of a family is to learn how to distinguish a family from a gang or club. To learn any body of content, therefore, it is necessary to learn to think accurately and reasonably with the concepts that define the content.

3) All "content" is logically interdependent. To understand one part of some content requires that we figure out its relation to other parts of that content.

For example, we understand what a scientific experiment is only when we understand what a scientific theory is. We understand what a scientific theory is only when we understand what a

scientific hypothesis is. We understand what a scientific hypothesis is only when we understand what a scientific prediction is. We understand what a scientific prediction is only when we understand what it is to scientifically test a view. We understand what it is to scientifically test a view only when we understand what a scientific experiment is. Etc....etc.....etc.... To learn any body of content, therefore, is to figure out (i.e., reason or think through) the connections between the parts of that content. There is no learning of the content without this thinking process.

To this point the majority of teachers and students approach content, not as a mode of thinking, not as a system for thought, or even as a system of thought, but rather as a sequence of stuff to be routinely "covered" and committed to memory. When content is approached in this lower order way, there is no basis for intellectual growth, no deep structures of knowledge formed, no basis for long term grasp and control.